PATENT COOPERATION TREATY

To:

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PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing *(day/month/year)*	29 July 2005 (29.07.2005)
Applicant's or agent's file reference: OPP040029KR	**FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority Date *(day/month/year)*
PCT/KR 2004/002766	29 October 2004 (29.10.2004)	31 October 2003 (31.10.2003)

International Patent Classification (IPC) or both national classification and IPC
H04Q 7/38, H04L 9/32, H04L 29/06

Applicant
ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE

1. This opinion contains indications relating to the following items:

- [x] Cont. No. I — Basis of the opinion
- [ ] Cont. No. II — Priority
- [ ] Cont. No. III — Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Cont. No. IV — Lack of unity of invention
- [x] Cont. No. V — Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Cont. No. VI — Certain documents cited
- [ ] Cont. No. VII — Certain defects in the international application
- [ ] Cont. No. VIII — Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ AT	Authorized officer
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Continuation No. I

Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed.

Continuation No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims ----	YES
	Claims **1-24**	NO
Inventive step (IS)	Claims ----	YES
	Claims **1-24**	NO
Industrial applicability (IA)	Claims **1-24**	YES
	Claims ----	NO

2. Citations and explanations:

The cited documents are:

D1: WO 1999/048318 A
D2: EP 1 343 345 A2

Document D1 provides a method, mobile station and radio communications system for controlling security-related functions for call handling. Based on the known method and radio communications system for controlling the security-related functions for call handling with subscriber authentication and secrecy of the information, a ciphering request having an identifier (cimode) is received and evaluated by the mobile station (MS) in order to determine whether the communications network wishes to have connections on the air interface (AIF) with ciphered information or with unciphered information. In this case, the mobile station (MS) can be switched under subscriber control to an operating mode in which the connection (for example v1) is terminated if the received identifier (cimode) allows connections with unciphered information. If the radio subscriber does not wish unciphered connections to be intercepted, it is possible to ensure that the information is transmitted, if required, such that it is proof against interception, under subscriber control.

Document D2 provides a mobile authentication system with reduced authentication delay. To minimize delay in re-authenticating with the network through a new base station, an additional form authenticated access mode called "credential authenticated" access is provided. The mobile unit is fully authenticated in the first base station (e.g., the user has logged in and paid

for service). Thereafter, the first base unit transmits a "credential" to the mobile node that may be used by other base stations to establish trust with the mobile node prior to full re-authentication. Upon entering the operational zone of the second base station, the mobile node can transmit the credential to the second base station, which may accept the credential and allow access by the mobile node to the network through the second base station before full authentication has completed.

The present application provides a method for requesting authentication from a base station in a wireless portable network system, comprising transmitting a basic capability negotiation message from a subscriber station to a base station, receiving a reply message, establish an authentication mode and requesting authentication on the subscriber mode. The base station may be connected to an authentication, authorization and accounting (AAA) server.

However, any of the cited documents, D1 or D2, provides the same features as the present application, i.e. a method for authenticating a subscriber station in a wireless portable Internet system and configuring a protocol thereof.

Accordingly, all claims 1 to 24 are not new and do not include an inventive step.

Industrial applicability is given.